

QR- BiFractal

Full Spectrum Diffuser

QR - BiFractal™ Diffuser-Absorber

Modular - easy to install

Decorative painted finishes. Fabric, wood and custom colors optional

Provides broadband diffusion and wide area coverage

Thickness: 9" nominal

Sizes (Nominal): 48" x 24", 24" x 24", all sizes nominal

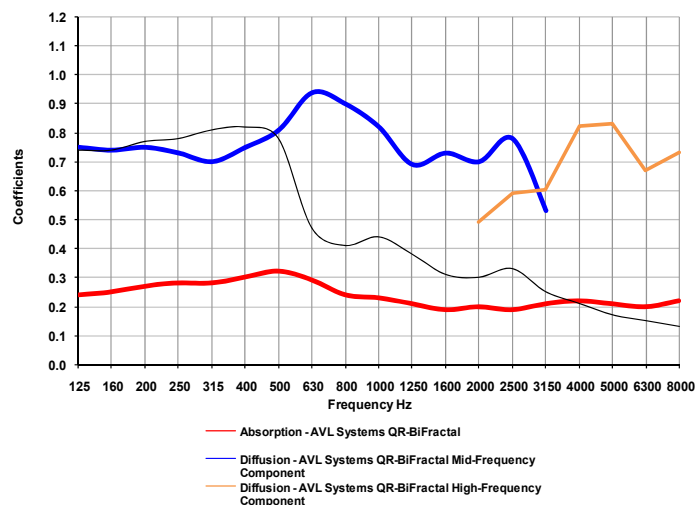
Special Sizes: Available upon request

Installation: Nail, screw, adhesive, as required

Acoustical Performance

Frequency (Hz)	125	250	500	1000	2000	4000	NRC
Absorption Coefficients, Type A Mount	.24	.28	.32	.23	.20	.22	.25

Frequency (Hz)	125	250	500	1000	2000	4000	MEAN
Diffusion Coefficients, AES-4id-2001	.75	.73	.81	.82	.70	.54	.73



Description

The AVL Systems QR-BiFractal™ Diffuser is an attractive broadband acoustical product that diffuses sound uniformly from all angles of incidence. This product's reflective phase grating design is optimized with the use of quadratic residue number theory and computer modeling analysis, then precisely manufactured to provide a product with desirable, single-dimension, wide-range diffusive scattering of returned acoustical energy. Finished panels are constructed and machined from new, impact-resistant, process-molded materials that prevent resonances and resist damage. Optional materials such as wood are available with only slightly reduced performance. Installation mounting is by traditional screw/bracket hardware direct to most architectural surfaces. This product is a quadratic residue design derived from mathematical number theory sequences for phase grating technology, then precisely manufactured to provide what can only be described as a diffuser nested within a diffuser, together providing uniform backscattering of sound energy within its own frequency range without lobing associated with periodic arrays or unwanted absorption due to viscous losses between wells. Finished profiles are solid core materials to prevent resonances and resist damage. Finishes are factory applied on standard or customer specified wood species.

Applications

AVL Systems QR-BiFractal™ Diffuser is an ideal solution for rooms and spaces where single-dimension broadband diffusion is desired. The design of these products allows the specifier to provide a combination of diffusion and absorption to enhance the listening enjoyment for both music and speech.

Interactive System Performance

The QR™ and DiSorb™ families of interactive performance products are designed to provide the acoustical engineer and specifier with a complete "toolbox" of technically compatible products for any application. These engineered products can be used individually or, as an interactive system, working together to optimally enhance the interior design, functionality, and acoustics of the architectural space. AVL Systems, Inc. is pleased to offer a full range of standard and custom architectural acoustic products for virtually every application and technical requirement.

Finishes

Painted finish standard. Optional choices include a wide selection of AVL Systems standard fabrics, or C.O.M. See Section 7.0 Hardwoods, or customer selected species are available.

Warranty

AVL Systems *Limited Warranty* extends for ONE FULL YEAR from the original date of shipment. AVL Systems literature, presentations and published data are correct to the best of our knowledge at time of publication. AVL Systems, Inc. reserves the right to change or amend any of the products or the information presented or published without liability or notice.

Hear
The
Difference



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